

# Refine Search

## Search Results -

Terms	Documents
L7 and (68 degrees)	42

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## Search History

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result set

*DB=USPT; PLUR=YES; OP=OR*

<u>L8</u>	L7 and (68 degrees)	42	<u>L8</u>
<u>L7</u>	L6 and (hybridization)	44	<u>L7</u>
<u>L6</u>	L5 and (DNA)	45	<u>L6</u>
<u>L5</u>	L4 and (nematicidal protein)	45	<u>L5</u>
<u>L4</u>	schnepf.in.	78	<u>L4</u>

*DB=PGPB; PLUR=YES; OP=OR*

<u>L3</u>	L1 and (Example 5)	1	<u>L3</u>
<u>L2</u>	L1 and (hybridization)	1	<u>L2</u>
<u>L1</u>	20040018982	1	<u>L1</u>

END OF SEARCH HISTORY

# Hit List

First Hit  Clear

Generate Collection

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Search Results - Record(s) 1 through 10 of 42 returned.

1. Document ID: US 7091177 B2

L8: Entry 1 of 42

File: USPT

Aug 15, 2006

US-PAT-NO: 7091177

DOCUMENT-IDENTIFIER: US 7091177 B2

TITLE: Bacillus thuringiensis isolates active against weevils

DATE-ISSUED: August 15, 2006

PRIOR-PUBLICATION:

DOC-ID DATE

US 20040033953 A1 February 19, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bradfisch; Gregory A.	San Diego	CA		US
Schnepf; H. Ernest	San Diego	CA		US
Kim; Leo	Carlsbad	CA		US

US-CL-CURRENT: 514/2; 514/12, 530/350

Full  Title  Citation  Front  Review  Classification  Date  Reference   Claims  KMC  Drawn Desc  Imagi

2. Document ID: US 7056888 B2

L8: Entry 2 of 42

File: USPT

Jun 6, 2006

US-PAT-NO: 7056888

DOCUMENT-IDENTIFIER: US 7056888 B2

TITLE: Pesticidal proteins and methods of using these proteins

DATE-ISSUED: June 6, 2006

PRIOR-PUBLICATION:

DOC-ID DATE

US 20030236195 A1 December 25, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Feitelson; Jerald S.	San Diego	CA		US
Schnepf; H. Ernest	San Diego	CA		US
Narva; Kenneth E.	San Diego	CA		US
Stockhoff; Brian A.	San Diego	CA		US
Schmeits; James	San Diego	CA		US
Loewer; David	San Diego	CA		US
Dullum; Charles Joseph	San Diego	CA		US

Muller-Cohn; Judy	Del Mar	CA	US
Stamp; Lisa	Solana Beach	CA	US
Morrill; George	El Cajon	CA	US
Finstad-Lee; Stacey	San Diego	CA	US

US-CL-CURRENT: 514/12; 435/252.5, 530/350, 800/302

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Sequences](#) | [Claims](#) | [KMC](#) | [Draw Desc](#) | [Ima](#)

3. Document ID: US 6956116 B2

L8: Entry 3 of 42

File: USPT

Oct 18, 2005

US-PAT-NO: 6956116

DOCUMENT-IDENTIFIER: US 6956116 B2

\*\* See image for Certificate of Correction \*\*

TITLE: Pesticidal toxins and genes from *Bacillus laterosporus* strains

DATE-ISSUED: October 18, 2005

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
<u>Schnepf</u> ; H. Ernest	San Diego	CA		
Narva; Kenneth E.	San Diego	CA		
Stockhoff; Brian A.	San Diego	CA		
Lee; Stacey Finstad	San Diego	CA		
Walz; Mikki	Poway	CA		
Sturgis; Blake	Solana Beach	CA		

US-CL-CURRENT: 536/23.7; 435/252.3, 435/252.31, 435/320.1, 435/410, 435/419, 435/468,  
530/350

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Sequences](#) | [Claims](#) | [KMC](#) | [Draw Desc](#) | [Ima](#)

4. Document ID: US 6900371 B2

L8: Entry 4 of 42

File: USPT

May 31, 2005

US-PAT-NO: 6900371

DOCUMENT-IDENTIFIER: US 6900371 B2

TITLE: Pesticidal proteins

DATE-ISSUED: May 31, 2005

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Narva; Kenneth E.	San Diego	CA		
<u>Schnepf</u> ; H. Ernest	San Diego	CA		
Knuth; Mark	Poway	CA		
Pollard; Michael R.	Okemos	MI		
Cardineau; Guy A.	Poway	CA		
Schwab; George E.	Encinitas	CA		
Michaels; Tracy Ellis	Escondido	CA		

Lee; Stacey Finstad	San Diego	CA
Burmeister; Paula	Ramona	CA
Dojillo; Joanna	San Diego	CA

US-CL-CURRENT: 800/302; 435/410, 435/412, 435/419, 536/23.2, 800/295, 800/298, 800/300.1

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Image](#) | [Claims](#) | [KWMC](#) | [Draw. Desc.](#) | [Ima...](#)

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5. Document ID: US 6893872 B2

L8: Entry 5 of 42

File: USPT

May 17, 2005

US-PAT-NO: 6893872

DOCUMENT-IDENTIFIER: US 6893872 B2

TITLE: Pesticidal toxins

DATE-ISSUED: May 17, 2005

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Narva; Kenneth E.	San Diego	CA		
<u>Schnepf</u> ; H. Ernest	San Diego	CA		
Knuth; Mark	Poway	CA		
Pollard; Michael R.	Okemos	MI		
Cardineau; Guy A.	Poway	CA		
Schwab; George E.	Encinitas	CA		
Michaels; Tracy Ellis	Escondido	CA		

US-CL-CURRENT: 435/412; 435/252.3, 435/419, 536/23.71

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Image](#) | [Claims](#) | [KWMC](#) | [Draw. Desc.](#) | [Ima...](#)

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6. Document ID: US 6752992 B2

L8: Entry 6 of 42

File: USPT

Jun 22, 2004

US-PAT-NO: 6752992

DOCUMENT-IDENTIFIER: US 6752992 B2

\*\* See image for Certificate of Correction \*\*

TITLE: Toxins active against pests

DATE-ISSUED: June 22, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
<u>Schnepf</u> ; H. Ernest	San Diego	CA		
Wicker; Carol	San Diego	CA		
Narva; Kenneth E.	San Diego	CA		
Walz; Michele	Poway	CA		
Stockhoff; Brian A.	San Diego	CA		
Muller-Cohn; Judy	Del Mar	CA		

US-CL-CURRENT: 424/246.1; 424/185.1, 424/190.1, 424/236.1, 530/350

7. Document ID: US 6677148 B1

L8: Entry 7 of 42

File: USPT

Jan 13, 2004

US-PAT-NO: 6677148

DOCUMENT-IDENTIFIER: US 6677148 B1

TITLE: Pesticidal proteins

DATE-ISSUED: January 13, 2004

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Narva; Kenneth E.	San Diego	CA		
<u>Schnepf; H. Ernest</u>	San Diego	CA		
Knuth; Mark	Poway	CA		
Pollard; Michael R.	Okemos	MI		
Cardineau; Guy A.	Poway	CA		
Schwab; George E.	Encinitas	CA		
Michaels; Tracy Ellis	Escondido	CA		
Lee; Stacey Finstad	San Diego	CA		
Diehl; Paula	Ramona	CA		
Dojillo; Joanna	San Diego	CA		
Stamp; Lisa	La Jolla	CA		
Herman; Rod	New Ross	IN		

US-CL-CURRENT: 435/252.3; 435/418, 435/419, 536/23.4, 536/23.71, 800/302 8. Document ID: US 6656908 B2

L8: Entry 8 of 42

File: USPT

Dec 2, 2003

US-PAT-NO: 6656908

DOCUMENT-IDENTIFIER: US 6656908 B2

\*\* See image for Certificate of Correction \*\*

TITLE: Pesticidal toxins and nucleotide sequences which encode these toxins

DATE-ISSUED: December 2, 2003

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Feitelson; Jerald S.	San Diego	CA		
<u>Schnepf; H. Ernest</u>	San Diego	CA		
Narva; Kenneth E.	San Diego	CA		
Stockhoff; Brian A.	San Diego	CA		
Schmeits; James	San Diego	CA		
Loewer; David	San Diego	CA		
Dullum; Charles Joseph	San Diego	CA		
Muller-Cohn; Judy	Del Mar	CA		

Stamp; Lisa	Del Mar	CA
Morrill; George	El Cajon	CA
Finstad-Lee; Stacey	San Diego	CA

US-CL-CURRENT: 514/12; 514/2, 530/350

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Image](#) | [Claims](#) | [KWMC](#) | [Drawn Date](#) | [Ima](#)

9. Document ID: US 6632792 B2

L8: Entry 9 of 42

File: USPT

Oct 14, 2003

US-PAT-NO: 6632792

DOCUMENT-IDENTIFIER: US 6632792 B2

\*\* See image for Certificate of Correction \*\*

TITLE: Nematicidal proteins

DATE-ISSUED: October 14, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Schnepf; H. Ernest	San Diego	CA		
Schwab; George E.	La Jolla	CA		
Payne; Jewel	Davis	CA		
Narva; Kenneth E.	San Diego	CA		
Foncerrada; Luis	Vista	CA		

US-CL-CURRENT: 514/12; 514/2, 530/350

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Image](#) | [Claims](#) | [KWMC](#) | [Drawn Date](#) | [Ima](#)

10. Document ID: US 6624145 B1

L8: Entry 10 of 42

File: USPT

Sep 23, 2003

US-PAT-NO: 6624145

DOCUMENT-IDENTIFIER: US 6624145 B1

TITLE: Pesticidal toxins

DATE-ISSUED: September 23, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Narva; Kenneth E.	San Diego	CA		
Schnepf; H. Ernest	San Diego	CA		
Knuth; Mark	Poway	CA		
Pollard; Michael R.	Okemos	MI		
Cardineau; Guy A.	Poway	CA		
Schwab; George E.	Encinitas	CA		
Michaels; Tracy Ellis	Escondido	CA		

US-CL-CURRENT: 514/12; 424/93.21, 424/93.461, 530/350, 536/23.71

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Terms

Documents

L7 and (68 degrees)

42

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NEWS 11 DEC 11 CAS REGISTRY chemical nomenclature enhanced  
NEWS 12 DEC 14 WPIDS/WPINDEX/WPIX manual codes updated  
NEWS 13 DEC 14 GBFULL and FRFULL enhanced with IPC 8 features and functionality  
NEWS 14 DEC 18 CA/CAplus pre-1967 chemical substance index entries enhanced with preparation role  
NEWS 15 DEC 18 CA/CAplus patent kind codes updated  
NEWS 16 DEC 18 MARPAT to CA/CAplus accession number crossover limit increased to 50,000  
NEWS 17 DEC 18 MEDLINE updated in preparation for 2007 reload  
NEWS 18 DEC 27 CA/CAplus enhanced with more pre-1907 records  
NEWS 19 JAN 08 CHEMLIST enhanced with New Zealand Inventory of Chemicals

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=> s nematicidal protein  
L1 56 NEMATICIDAL PROTEIN

=> s 11 and (DNA)  
L2 12 L1 AND (DNA)

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L2 ANSWER 1 OF 12 USPATFULL on STN

TI Methods of protecting plants from pathogenic fungi and nematodes  
AB Methods for protecting a plant from a pathogen, particularly a pathogenic fungus or nematode, are provided. A method for enhancing pathogen resistance in a plant using the nucleotide sequences disclosed herein is further provided. The method comprises introducing into a plant an expression cassette comprising a promoter operably linked to a nucleotide sequence that encodes an antipathogenic polypeptide of the invention. Transformed plants, plant cells, seeds, and microorganisms comprising a nucleotide sequence that encodes an antipathogenic polypeptide of the embodiments, or variant or fragment thereof, are also disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 200629873 USPATFULL

TITLE: Methods of protecting plants from pathogenic fungi and nematodes

INVENTOR(S): Ali, Hana S., San Francisco, CA, UNITED STATES  
Keenan, Robert J., Chicago, IL, UNITED STATES  
Lassner, Michael, Foster City, CA, UNITED STATES  
Muller, Mathias L., Waukee, IA, UNITED STATES  
Shah, Gowri, Fremont, CA, UNITED STATES  
Wei, Jun-Zhi, Palo Alto, CA, UNITED STATES  
Wu, Gusui, Palo Alto, CA, UNITED STATES

PATENT ASSIGNEE(S): Pioneer Hi-Bred International, Inc. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2006026708	A1	20060202
APPLICATION INFO.:	US 2005-172536	A1	20050630 (11)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2004-584729P	20040630 (60)

DOCUMENT TYPE: Utility  
FILE SEGMENT: APPLICATION  
LEGAL REPRESENTATIVE: PIONEER HI-BRED INTERNATIONAL, INC., 7250 N.W. 62ND AVENUE, P.O. BOX 552, JOHNSTON, IA, 50131-0552, US  
NUMBER OF CLAIMS: 59  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 2 Drawing Page(s)  
LINE COUNT: 2632  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 2 OF 12 USPATFULL on STN

TI Nematicidal proteins

AB This invention concerns nematicidal proteins obtainable from *Bacillus thuringiensis* isolates. The subject invention also provides various methods of using these proteins for controlling nematodes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2004:25140 USPATFULL

TITLE: Nematicidal proteins

INVENTOR(S): Schnepf, H. Ernest, San Diego, CA, UNITED STATES  
Schwab, George E., La Jolla, CA, UNITED STATES  
Payne, Jewel, Davis, CA, UNITED STATES  
Narva, Kenneth E., San Diego, CA, UNITED STATES  
Foncerrada, Luis, Vista, CA, UNITED STATES

NUMBER KIND DATE

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PATENT INFORMATION: US 2004018982 A1 20040129  
APPLICATION INFO.: US 2003-633023 A1 20030731 (10)  
RELATED APPLN. INFO.: Division of Ser. No. US 2000-738363, filed on 15 Dec 2000, GRANTED, Pat. No. US 6632792 Division of Ser. No. US 1998-76137, filed on 12 May 1998, GRANTED, Pat. No. US 6166195 Division of Ser. No. US 1994-316301, filed on 30 Sep 1994, GRANTED, Pat. No. US 5753492 Division of Ser. No. US 1992-871510, filed on 23 Apr 1992, ABANDONED Continuation-in-part of Ser. No. US 1991-693018, filed on 3 May 1991, ABANDONED Continuation-in-part of Ser. No. US 1992-830050, filed on 31 Jan 1992, ABANDONED Continuation-in-part of Ser. No. US 1990-565544, filed on 10 Aug 1990, ABANDONED Continuation-in-part of Ser. No. US 1987-84653, filed on 12 Aug 1987, GRANTED, Pat. No. US 4948734 Continuation-in-part of Ser. No. US 1991-675772, filed on 27 Mar 1991, GRANTED, Pat. No. US 5262399 Continuation-in-part of Ser. No. US 1990-565544, filed on 10 Aug 1990, ABANDONED Continuation-in-part of Ser. No. US 1990-557246, filed on 24 Jul 1990, GRANTED, Pat. No. US 5281530 Continuation-in-part of Ser. No. US 1990-535810, filed on 11 Jun 1990, ABANDONED Continuation-in-part of Ser. No. US 1987-84653, filed on 12 Aug 1987, GRANTED, Pat. No. US 4948734

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: SALIWANCHIK LLOYD & SALIWANCHIK, A PROFESSIONAL ASSOCIATION, 2421 N.W. 41ST STREET, SUITE A-1, GAINESVILLE, FL, 326066669

NUMBER OF CLAIMS: 37

EXEMPLARY CLAIM: 1

LINE COUNT: 2690

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 3 OF 12 USPATFULL on STN

TI Nematicidal proteins

AB This invention concerns nematicidal proteins obtainable from *Bacillus thuringiensis* isolates. The subject invention also provides various methods of using these proteins for controlling nematodes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2001:123424 USPATFULL

TITLE: Nematicidal proteins

INVENTOR(S): Schnepf, H. Ernest, San Diego, CA, United States

Schwab, George E., La Jolla, CA, United States

Payne, Jewel, Davis, CA, United States

Narva, Kenneth E., San Diego, CA, United States

Foncerrada, Luis, Vista, CA, United States

PATENT ASSIGNEE(S): Mycogen Corporation, Indianapolis, IN, United States,  
46268-1054 (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001010932	A1	20010802
	US 6632792	B2	20031014
APPLICATION INFO.:	US 2000-738363	A1	20001215 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1998-76137, filed on 12 May 1998, GRANTED, Pat. No. US 6166195 Division of Ser. No. US 1994-316301, filed on 30 Sep 1994, GRANTED, Pat. No. US 5753492 Division of Ser. No. US 1992-871510, filed on 23 Apr 1992, ABANDONED Continuation-in-part of Ser. No. US 1991-693018, filed on 3 May 1991, ABANDONED Continuation-in-part of Ser. No. US 1992-830050, filed on 31 Jan 1992, ABANDONED Continuation-in-part of Ser. No. US 1987-84653, filed on 12 Aug 1987, GRANTED, Pat. No. US 4948734		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	SALIWANCHIK LLOYD & SALIWANCHIK, A PROFESSIONAL ASSOCIATION, 2421 N.W. 41ST STREET, SUITE A-1, GAINESVILLE, FL, 326066669		
NUMBER OF CLAIMS:	44		
EXEMPLARY CLAIM:	1		
LINE COUNT:	2753		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 4 OF 12 DGENE COPYRIGHT 2007 The Thomson Corp on STN

TI New nematicidal protein, useful in producing plants which are resistant and/or tolerant to nematodes, a nematocide or a vaccine against nematode infection.

AN ADX39071 DNA DGENE

AB The invention describes a nematicidal protein comprising a defined 142- amino acid sequence given in the specification. Also described are: a polynucleotide which encodes the nematicidal protein; a construct comprising the polynucleotide; a host cell comprising the polynucleotide or construct; a transgenic plant comprising the polynucleotide or construct; a method of providing a plant or a plant part with a nematicidal protein; a composition comprising a nematicidal protein and an agriculturally acceptable carrier, diluent or nematode attractant; and a method of controlling nematodes. The nematicidal protein is useful in producing plants which are resistant and/or tolerant to nematodes, a nematocide, or a vaccine against nematode infection. This sequence represents a 5' consensus sequence of the *Lepista nuda* nematicidal protein.

ACCESSION NUMBER: ADX39071 DNA DGENE

TITLE: New nematicidal protein, useful in producing plants which are resistant and/or tolerant to

nematodes, a nematocide or a vaccine against nematode infection.

INVENTOR: Mackay K; Fox D; Fletcher J; Harrison S; Mackay E; Sheridan J; Cayley J

PATENT ASSIGNEE: (SYGN)SYNGENTA LTD.

PATENT INFO: WO 2005012340 A1 20050210 70

APPLICATION INFO: WO 2004-GB3231 20040726

PRIORITY INFO: GB 2003-18109 20030801

DOCUMENT TYPE: Patent

LANGUAGE: English

OTHER SOURCE: 2005-142872 [15]

CROSS REFERENCES: P-PSDB: ADX39072

DESCRIPTION: Nematicidal protein 5' consensus sequence DNA SEQ ID NO 32.

L2 ANSWER 5 OF 12 DGENE COPYRIGHT 2007 The Thomson Corp on STN  
TI New nematicidal protein, useful in producing plants  
which are resistant and/or tolerant to nematodes, a nematocide or a  
vaccine against nematode infection.

AN ADX39076 DNA DGENE

AB The invention describes a nematicidal protein comprising a defined 142- amino acid sequence given in the specification. Also described are: a polynucleotide which encodes the nematicidal protein; a construct comprising the polynucleotide; a host cell comprising the polynucleotide or construct; a transgenic plant comprising the polynucleotide or construct; a method of providing a plant or a plant part with a nematicidal protein; a composition comprising a nematicidal protein and an agriculturally acceptable carrier, diluent or nematode attractant; and a method of controlling nematodes. The nematicidal protein is useful in producing plants which are resistant and/or tolerant to nematodes, a nematocide, or a vaccine against nematode infection. This sequence represents the full length DNA encoding Lepista nuda nematicidal protein.

ACCESSION NUMBER: ADX39076 DNA DGENE

TITLE: New nematicidal protein, useful in producing plants which are resistant and/or tolerant to nematodes, a nematocide or a vaccine against nematode infection.

INVENTOR: Mackay K; Fox D; Fletcher J; Harrison S; Mackay E; Sheridan J; Cayley J

PATENT ASSIGNEE: (SYGN)SYNGENTA LTD.

PATENT INFO: WO 2005012340 A1 20050210 70

APPLICATION INFO: WO 2004-GB3231 20040726

PRIORITY INFO: GB 2003-18109 20030801

DOCUMENT TYPE: Patent

LANGUAGE: English

OTHER SOURCE: 2005-142872 [15]

DESCRIPTION: Lepista nuda nematicidal protein amplicon  
SEQ ID NO 37.

L2 ANSWER 6 OF 12 DGENE COPYRIGHT 2007 The Thomson Corp on STN  
TI New nematicidal protein, useful in producing plants  
which are resistant and/or tolerant to nematodes, a nematocide or a  
vaccine against nematode infection.

AN ADX39041 DNA DGENE

AB The invention describes a nematicidal protein comprising a defined 142- amino acid sequence given in the specification. Also described are: a polynucleotide which encodes the nematicidal protein; a construct comprising the polynucleotide; a host cell comprising the polynucleotide or construct; a transgenic plant comprising the polynucleotide or construct; a method

of providing a plant or a plant part with a nematicidal protein; a composition comprising a nematicidal protein and an agriculturally acceptable carrier, diluent or nematode attractant; and a method of controlling nematodes. The nematicidal protein is useful in producing plants which are resistant and/or tolerant to nematodes, a nematocide, or a vaccine against nematode infection. This sequence encodes a *Lepista nuda* nematicidal protein.

ACCESSION NUMBER: ADX39041 DNA DGENE

TITLE: New nematicidal protein, useful in producing plants which are resistant and/or tolerant to nematodes, a nematocide or a vaccine against nematode infection.

INVENTOR: Mackay K; Fox D; Fletcher J; Harrison S; Mackay E; Sheridan J; Cayley J

PATENT ASSIGNEE: (SYGN) SYNGENTA LTD.

PATENT INFO: WO 2005012340 A1 20050210

70

APPLICATION INFO: WO 2004-GB3231 20040726

PRIORITY INFO: GB 2003-18109 20030801

DOCUMENT TYPE: Patent

LANGUAGE: English

OTHER SOURCE: 2005-142872 [15]

CROSS REFERENCES: P-PSDB: ADX39040

DESCRIPTION: *Lepista nuda* nematicidal protein DNA.

L2 ANSWER 7 OF 12 DGENE COPYRIGHT 2007 The Thomson Corp on STN

TI New nematicidal protein, useful in producing plants which are resistant and/or tolerant to nematodes, a nematocide or a vaccine against nematode infection.

AN ADX39080 DNA DGENE

AB The invention describes a nematicidal protein comprising a defined 142- amino acid sequence given in the specification. Also described are: a polynucleotide which encodes the nematicidal protein; a construct comprising the polynucleotide; a host cell comprising the polynucleotide or construct; a transgenic plant comprising the polynucleotide or construct; a method of providing a plant or a plant part with a nematicidal protein; a composition comprising a nematicidal protein and an agriculturally acceptable carrier, diluent or nematode attractant; and a method of controlling nematodes. The nematicidal protein is useful in producing plants which are resistant and/or tolerant to nematodes, a nematocide, or a vaccine against nematode infection. This sequence represents the complement of the *Lepista nuda* nematicidal protein amplicon isolated in example 2 of the invention ADX39073.

ACCESSION NUMBER: ADX39080 DNA DGENE

TITLE: New nematicidal protein, useful in producing plants which are resistant and/or tolerant to nematodes, a nematocide or a vaccine against nematode infection.

INVENTOR: Mackay K; Fox D; Fletcher J; Harrison S; Mackay E; Sheridan J; Cayley J

PATENT ASSIGNEE: (SYGN) SYNGENTA LTD.

PATENT INFO: WO 2005012340 A1 20050210

70

APPLICATION INFO: WO 2004-GB3231 20040726

PRIORITY INFO: GB 2003-18109 20030801

DOCUMENT TYPE: Patent

LANGUAGE: English

OTHER SOURCE: 2005-142872 [15]

DESCRIPTION: Nematicidal protein 3' consensus sequence DNA SEQ ID NO '41.

L2 ANSWER 8 OF 12 DGENE COPYRIGHT 2007 The Thomson Corp on STN  
TI New nematicidal protein, useful in producing plants  
which are resistant and/or tolerant to nematodes, a nematocide or a  
vaccine against nematode infection.  
AN ADX39081 DNA DGENE  
AB The invention describes a nematicidal protein  
comprising a defined 142- amino acid sequence given in the specification.  
Also described are: a polynucleotide which encodes the  
nematicidal protein; a construct comprising the  
polynucleotide; a host cell comprising the polynucleotide or construct;  
a transgenic plant comprising the polynucleotide or construct; a method  
of providing a plant or a plant part with a nematicidal  
protein; a composition comprising a nematicidal  
protein and an agriculturally acceptable carrier, diluent or  
nematode attractant; and a method of controlling nematodes. The  
nematicidal protein is useful in producing plants  
which are resistant and/or tolerant to nematodes, a nematocide, or a  
vaccine against nematode infection. This sequence represents the  
complement of the full length DNA encoding Lepista nuda  
nematicidal protein ADX39076.

ACCESSION NUMBER: ADX39081 DNA DGENE  
TITLE: New nematicidal protein, useful in  
producing plants which are resistant and/or tolerant to  
nematodes, a nematocide or a vaccine against nematode  
infection.  
INVENTOR: Mackay K; Fox D; Fletcher J; Harrison S; Mackay E; Sheridan  
J; Cayley J  
PATENT ASSIGNEE: (SYGN) SYNGENTA LTD.  
PATENT INFO: WO 2005012340 A1 20050210 70  
APPLICATION INFO: WO 2004-GB3231 20040726  
PRIORITY INFO: GB 2003-18109 20030801  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
OTHER SOURCE: 2005-142872 [15]  
DESCRIPTION: Lepista nuda nematicidal protein amplicon  
SEQ ID NO 42.

L2 ANSWER 9 OF 12 DGENE COPYRIGHT 2007 The Thomson Corp on STN  
TI New nematicidal protein, useful in producing plants  
which are resistant and/or tolerant to nematodes, a nematocide or a  
vaccine against nematode infection.  
AN ADX39078 DNA DGENE  
AB The invention describes a nematicidal protein  
comprising a defined 142- amino acid sequence given in the specification.  
Also described are: a polynucleotide which encodes the  
nematicidal protein; a construct comprising the  
polynucleotide; a host cell comprising the polynucleotide or construct;  
a transgenic plant comprising the polynucleotide or construct; a method  
of providing a plant or a plant part with a nematicidal  
protein; a composition comprising a nematicidal  
protein and an agriculturally acceptable carrier, diluent or  
nematode attractant; and a method of controlling nematodes. The  
nematicidal protein is useful in producing plants  
which are resistant and/or tolerant to nematodes, a nematocide, or a  
vaccine against nematode infection. This sequence represents the  
complement of the Lepista nuda nematicidal protein  
amplicon isolated in example 2 of the invention ADX39071.

ACCESSION NUMBER: ADX39078 DNA DGENE  
TITLE: New nematicidal protein, useful in  
producing plants which are resistant and/or tolerant to  
nematodes, a nematocide or a vaccine against nematode  
infection.  
INVENTOR: Mackay K; Fox D; Fletcher J; Harrison S; Mackay E; Sheridan

J; Cayley J  
PATENT ASSIGNEE: (SYGN)SYNGENTA LTD.  
PATENT INFO: WO 2005012340 A1 20050210 70  
APPLICATION INFO: WO 2004-GB3231 20040726  
PRIORITY INFO: GB 2003-18109 20030801  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
OTHER SOURCE: 2005-142872 [15]  
DESCRIPTION: Nematicidal protein 5' consensus sequence  
DNA SEQ ID NO 39.

L2 ANSWER 10 OF 12 DGENE COPYRIGHT 2007 The Thomson Corp on STN  
TI New nematicidal protein, useful in producing plants  
which are resistant and/or tolerant to nematodes, a nematocide or a  
vaccine against nematode infection.  
AN ADX39073 DNA DGENE  
AB The invention describes a nematicidal protein  
comprising a defined 142- amino acid sequence given in the specification.  
Also described are: a polynucleotide which encodes the  
nematicidal protein; a construct comprising the  
polynucleotide; a host cell comprising the polynucleotide or construct; a method  
of providing a plant or a plant part with a nematicidal  
protein; a composition comprising a nematicidal  
protein and an agriculturally acceptable carrier, diluent or  
nematode attractant; and a method of controlling nematodes. The  
nematicidal protein is useful in producing plants  
which are resistant and/or tolerant to nematodes, a nematocide, or a  
vaccine against nematode infection. This sequence represents a 3'  
consensus sequence of the Lepista nuda nematicidal  
protein.

ACCESSION NUMBER: ADX39073 DNA DGENE  
TITLE: New nematicidal protein, useful in  
producing plants which are resistant and/or tolerant to  
nematodes, a nematocide or a vaccine against nematode  
infection.  
INVENTOR: Mackay K; Fox D; Fletcher J; Harrison S; Mackay E; Sheridan  
J; Cayley J  
PATENT ASSIGNEE: (SYGN)SYNGENTA LTD.  
PATENT INFO: WO 2005012340 A1 20050210 70  
APPLICATION INFO: WO 2004-GB3231 20040726  
PRIORITY INFO: GB 2003-18109 20030801  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
OTHER SOURCE: 2005-142872 [15]  
CROSS REFERENCES: P-PSDB: ADX39074  
DESCRIPTION: Nematicidal protein 3' consensus sequence  
DNA SEQ ID NO 34.

L2 ANSWER 11 OF 12 DGENE COPYRIGHT 2007 The Thomson Corp on STN  
TI Novel insecticidal and nematicidal protein obtained  
from Xerocomus chrysenteron, for controlling insects and nematodes, and  
for insect-resistant and nematode-resistant transgenic plant production -  
AN AAF29964 DNA DGENE  
AB The present invention relates to an insecticidal and nematicidal  
protein obtained from Xerocomus sp. The protein is useful in the  
preparation of an insecticide. The protein is also useful in detection of  
specific glycans.  
ACCESSION NUMBER: AAF29964 DNA DGENE  
TITLE: Novel insecticidal and nematicidal protein  
obtained from Xerocomus chrysenteron, for controlling insects  
and nematodes, and for insect-resistant and  
nematode-resistant transgenic plant production -

INVENTOR: Fournier D; Paquereau L; Klaebe A; Chavant L  
PATENT ASSIGNEE: (ZENE) ZENECA LTD.  
PATENT INFO: WO 2001000840 A1 20010104 46  
APPLICATION INFO: WO 2000-GB2453 20000623  
PRIORITY INFO: GB 1999-14827 19990624  
EP 2000-401277 20000510  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
OTHER SOURCE: 2001-137956 [14]  
DESCRIPTION: DNA encoding insecticidal /nematicidal protein from X.chrysenteron.

L2 ANSWER 12 OF 12 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Novel insecticidal and nematicidal protein obtained from Xerocomus chrysenteron, for controlling insects and nematodes, and for insect-resistant and nematode-resistant transgenic plant production

AN 2001-137956 [14] WPIDS

AB WO 2001000840 A1 UPAB: 20050901

NOVELTY - An insecticidal and nematicidal protein (I) obtained from Xerocomus sp., is new. (I) comprises a 144 residue amino acid sequence (S1), fully defined in the specification, or a variant sequence at least 60 % identical to S1.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a polynucleotide (II) encoding (I);  
(2) a polynucleotide sequence (IIa) complementary to a sequence which hybridizes to (II), at 65 degrees C in a solution containing 6xSSC (saline sodium chloride), 0.01 % sodium dodecyl sulfate (SDS) and 0.25 % skimmed milk powder, followed by rinsing at the same temperature in a solution containing 0.2xSSC and 0.1 % SDS, and still encoding (I);  
(3) evolving a polynucleotide encoding (I), comprising:

(a) providing a population of variants of (II) or (IIa), and further polynucleotides which encode a second protein, where at least one of the polynucleotides is in cell-free form;

(b) shuffling variants and other polynucleotides to form recombinant polynucleotides;

(c) selecting or screening for recombinant polynucleotides which have evolved towards insecticidal and/or nematicidal properties; and

(d) repeating the process with the recombinant polynucleotides until an evolved polynucleotide which encodes (I) has been acquired;

(4) a polynucleotide obtainable or obtained by the method of (3);

(5) a protein encoded by the polynucleotide of (4);

(6) isolating a polynucleotide encoding (I) from Xerocomus sp., comprising:

(a) constructing a DNA library of Xerocomus sp. or a particular strain, preferably Xerocomus chrysenteron;

(b) probing the library with at least one oligonucleotide probe capable of detecting the polynucleotide present in the library, where the probe is derived from (S1-S5); and

(c) identifying and isolating the detected polynucleotide;

(7) an isolated polynucleotide obtainable by the method of (6);

(8) an insecticidal and/or nematicidal protein encoded by the polynucleotide of (7);

(9) a DNA construct (III) comprising in sequence, a plant operable promoter operably linked to (II), (IIa) or the polynucleotide of (4) or (7), or a polynucleotide encoding them, and a transcription termination region;

(10) providing a plant or plant part with (I), by inserting (II), (IIa), (III), or the polynucleotide of (4) or (7), into the genome of the plant material, regenerating plants or plant parts from the material, and selecting the plants or plant parts having the protein;

(11) a plant or plant parts, obtained by the method of (10);

(12) a composition comprising (I), or an extract of Xerocomus sp. protein;  
(13) a plant cell comprising (I);  
(14) an insecticidal synergistic combination (IV) comprising (I), and a second protein;  
(15) a polynucleotide comprising a first region encoding (I) and a second region encoding a second protein; and  
(16) a recombinant microorganism or recombinant baculovirus for producing (I).

IleThrValAlaValGly (S1), GlnLeuAlaGluTyrSerVal (S2), GlyTyrPheSerIleValGluLys (S3), ThrValTrpHisPheAlaAsnGly (S4), and GlyTyrPheSERIleValGluSerThrVal (S5).

ACTIVITY - Insecticide.

Flies were allowed to lay eggs overnight on a rearing medium. Three groups of ten eggs were harvested and added to the rearing medium containing the lectin. After 14 days at 25 degrees C, the development was completed and the adults were counted. Normal development of eggs was followed with rearing medium devoid of lectin. The corrected mortality was determined with the Abbot method. The Lathyrus ochrus lectin presented a LC50 of 8.51 mg/ml and the Galanthus nivalis lectin a LC50 of 0.72 mg/ml. The fungal lectin which showed a LC50 of 0.38 mg/ml, was the more toxic.

MECHANISM OF ACTION - None given.

USE - Xerocomus sp., preferably Xerocomus chrysenteron, is useful in the preparation of an insecticide and/or nematicide containing (I) as an active ingredient. (II) and (III) are useful for transgenic plant production such as melons, mangoes, soybean, cotton, tobacco, sugarbeet, oilseed rape, canola, flax, sunflower, potato, tomato, alfalfa, lettuce, maize, wheat, sorghum, rye, bananas, barley, oat, turf grass, forage grass, sugar cane, pea, field bean, rice, pine, poplar, apple, peaches, grape, strawberries, carrot, cabbage, onion, citrus, cereal, nut plants or other horticultural crops, or plant parts, which are resistant to insects. (I) is useful for controlling insects and/or nematodes by providing them at a locus where the insects feed. The recombinant baculovirus is also useful for controlling insects. (I) is also useful in detection, isolation and characterization of specific glycans. (All claimed).

ACCESSION NUMBER: 2001-137956 [14] WPIDS

DOC. NO. CPI: C2001-040554 [14]

DOC. NO. NON-CPI: N2001-100477 [14]

TITLE: Novel insecticidal and nematicidal protein obtained from Xerocomus chrysenteron, for controlling insects and nematodes, and for insect-resistant and nematode-resistant transgenic plant production

DERWENT CLASS: C03; C05; C06; D16; P13

INVENTOR: CHAVANT L; FOURNIER D; KLAEBE A; PAQUEREAU L

PATENT ASSIGNEE: (SYNG-N) SYNGENTA LTD; (ZENE-C) ZENECA LTD

COUNTRY COUNT: 92

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2001000840	A1	20010104	(200114)*	EN	46[7]	
AU 2000055530	A	20010131	(200124)	EN		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001000840	A1	WO 2000-GB2453	20000623
AU 2000055530	A	AU 2000-55530	20000623

FILING DETAILS:

PATENT NO                    KIND                    PATENT NO  
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AU 2000055530 A            Based on            WO 2001000840 A

PRIORITY APPLN. INFO: EP 2000-401277 20000510  
GB 1999-14827 19990624